

Safety Advisory Committee
October 23, 2009
10:00 AM – 12:00 PM

Minutes

Committee Member	Representing	Present
Anderson, Erik	Materials Sciences Division	
Banda, Michael J.	Computing Sciences Directorate	X
Bello, Madelyn	Human Resources Advisor	X
Blodgett, Paul M.	Environment, Health and Safety Division	X
Christensen, John N.	Earth Sciences Division	X
Floyd, Jim	Safety Advisory Committee Chair	X
Fujikawa, Brian	Nuclear Science Division	X
Ji, Qing	Accelerator & Fusion Research Division	X
Kostecki, Robert	Environmental Energy Technologies Division	X
Lowden, Rosemary	Information Technology Division	X
Lukens Jr., Wayne W.	Chemical Sciences Division	X
Madaras, Ron	Physics Division	*
Martin, Michael C.	Advanced Light Source Division	X
More, Anil	Office of the CFO Advisor	
Patterson, Pam	Public Affairs Advisor	
Petzold, Christopher J.	Physical Biosciences Division	
Pollard, Martin	Genomics Division	X
Taylor, Scott E.	Life Sciences Division	X
Thomas, Patricia M.	Safety Review Committee Secretary	X
Wong, Weyland	Engineering Division	

Others Present: Mike Carr, Brandon DeFrancisci, Joe Dionne, Howard Hatayama, Robert Mueller, Scott Robinson, Mike Ruggieri, Mike Wisherop, * Marty White (for Ron Madaras)

Chairman's Comments – Jim Floyd

The minutes of the September meeting were approved.

Peter Lichty, Paul Blodgett, Larry McLouth, and Rick Kelley are discussing the status of the Department of Energy's (DOE's) nanotechnology policy. They will be reporting back to the Committee.

Anil More will be our advisor from the Office of the Chief Financial Officer (CFO). Pam Patterson will be our advisor from Public Affairs.

The Radiation Safety Subcommittee would like to have a liaison from the Safety Advisory Committee. John Christensen volunteered.

Jim Floyd has been meeting with John Chernowski periodically to discuss the plans for conducting peer reviews. There will be more information at the next meeting.

The investigation of a recent laser accident at Stanford Linear Accelerator Center (SLAC) has raised some management issues. The Committee would like to hear more about it.

Environmental Health and Safety (EHS) News – Howard Hatayama

- **Roles and Responsibilities** – EHS is working on revisions to PUB-3000, Chapter 1, Roles and Responsibilities. The intent is to clarify existing policy. This is being done in response to the Corrective Action Plan section on accountability. The changes will be proposed in November.
- **Supervisory Training** – The training classes for supervisors and work leads have been suspended. The information is being consolidated into one class. It has not been decided whether the new course will be required for all supervisors, or just new ones. Some people are missing just the walkround training. In the interim, EHS can schedule training for Divisions as needed.
- **Federal Leadership Initiative** – An Executive Order was signed in early October that will require the Lab to submit a plan to DOE on how we will address several environmental issues, including water conservation, fleet management, and building design. We will be expected to reduce green house gas emissions by managing commuting and travel to conferences, and meetings. It is not clear yet what the impact to Lab staff will be. EHS will coordinate this with SAC as it develops.
- **Contract Performance Measures** – There are three EHS contract performance measures for FY10. One measure calls for completion of 90% of Corrective Action Plan actions. The emphasis is on completing actions on schedule. The second performance measure calls for open reporting and communications with DOE/BSO. LBNL is looking for ways to encourage reporting of safety concerns. Open reporting helps to maintain credibility. There is also an environmental management measure, which includes reducing diesel emissions and increasing energy conservation. Quarterly status meetings will be held with DOE/Berkeley Site Office. Protocols are being defined as to what gets counted. There is an effort to improve planning this year. Howard Hatayama will provide additional information for distribution.

EHS Management System

EHS is asking for changes to PUB-3000, Chapter 1, Section 1.2.1ES&H policy and requirements management system. Richard DeBusk, Nancy Rothermich, and Glenn Hoynes from McCallum/Turner have been working on the proposal. In Health, Safety and Security (HSS) review Corrective Action Plan (CAP) Finding CC1, ineffective development and implementation of new or significantly revised EHS programs was identified as a common cause of several weaknesses. The schedule is to have an interim system in place by December 1, 2009 and a final system by July 1, 2010. The benefits will be to have a structured approach that assures that requirements of DOE Orders and

regulations are addressed adequately, user input is considered, and new requirements are communicated to all affected people (not just the SAC members and Division Safety Coordinators). The result will be a better product that requires less re-work.

The plan is to establish a graded approach depending on the significance level of the changes, as determined by the Subject Matter Expert/Project Manager. The factors that determine the significance level include how many people are affected, and the risk (health and safety, LBNL reputation, and fines or penalties). There would be greater levels of rigor in documentation and approvals for more significant changes. The Lab Director would be involved in major decisions. There will be a support group to advise the Lab Director. There is a worksheet for Subject Matter Experts, which is revived by the Group Lead and Division Director. The assessment of significance is somewhat qualitative. It is hard to explain the significance level grid, but there has been very little trouble in assigning significance during the pilot. There was a question about whether cost should also be considered. It may be difficult to estimate costs. Affects on funding as well as implementation costs would need to be included. The primary factor in risk is the number of people impacted. EHS has looked at how current projects would be rated. New policies not going into PUB-3000 also need to be included. Howard Hatayama discusses new initiative with Group Leaders at staff meetings.

When considering proposed changes, the Safety Advisory Committee will expect to hear about how the requirements were met. Comments on the proposed system can be submitted through the e-room. There will be a one-page policy, with templates and a guide on how to do the assessments in appendices. Jim Floyd will look at whether the SAC Charter is consistent with the proposed changes.

EHS is looking at an Information Technology tool to support the system. They are using a shared drive. They could use e-room, but they may exceed its capabilities. A checklist and project folders are being used now. Committee members commented that it would be useful to have the folders available and to be able to see the due dates and status, so that the process would be transparent. There should be a Lessons Learned aspect, with user feedback at the end of each project as to the effectiveness of the implementation. The development process should also be evaluated. The checklist should include a statement of the problem that will be solved by the proposed change.

There is a concern that EHS may take on too many projects for the amount of resources available. Projects need to be prioritized. There should be a tie between problems identified in the Technical Assurance Program, their significance, and the measures being proposed to address the issues. There are several ways that the need for changes can come up, including assessments, incidents, and new requirements.

There is another corrective action about communications. The communication of new policies has been inconsistent.

Committee members should send additional comments to Richard DeBusk and Nancy Rothermich.

Cryogenics – Joe Dionne

A separate chapter of PUB-3000 for cryogen safety is being developed. The chapter will address user training, oxygen deficiency evaluations, and transportation of dewars. The subcommittee working on the chapter includes Michael Martin, Wayne Lukens, Rick Kelly, and Joe Dionne. Cryogen users were interviewed. The users have suggested that the training include scenarios that give examples of what could go wrong. An alpha test of the training has been completed. Beta testing will take place in November.

EHS is conducting an evaporation study of liquid nitrogen dewars to see how actual evaporation compares with the manufacturer's estimate of 1.9% per day. The dewars are being weighed daily. The evaporation rate has been variable. It was found that the valve was not seated properly on one dewar. They should also look at other types of dewars and gas cylinders. They also want to do a catastrophic release test, to simulate a safety valve snap-off. It was suggested that this test could be filmed for training purposes.

There have been ownership and maintenance issues with dewars. It is sometimes difficult to tell who "owns" them.

The draft chapter will be posted for comment in November. In December, EHS will be conducting assessments in some labs. Argonne Lab has a risk assessment tool. Online training should be available in December. There is a question about whether the training will be required for all cryogen users, or just people who have not completed the existing Compressed Gas and Cryogen Safety class. People who are just using boil-off from cryogenics should take the training. The on-line compressed gas course takes about 2 ½ hours to complete. Pressure safety training also needs to be updated. EHS is working on a communication plan for the new requirements.

There were some questions about implementation costs. The cost of installing and testing oxygen monitors could be a huge impact. EHS will be looking at the size of spaces, amount of ventilation, and the type and quantity of gas to decide which areas need oxygen monitors. There need to be procedures for what to do when the ventilation systems go down. The cost of installing chains on elevators is trivial.

Electrical Safety Activity Hazard Documents (AHDs) – Mike Wisherop

Activity Hazard Documents (AHDs) or equivalent authorizations will be required for electrical work with exposures to >50Volts and 5 milliamps, including testing, troubleshooting, and Lockout/Tagout verification. The plan was to initiate the AHDs by December 2009. EHS has a shortage of electrical safety resources (one Subject Matter Expert to work with the Principal Investigators). EHS is proposing several changes to Chapter 8 of PUB-3000. AHD development will be extended from December 19, 2009

to April 1, 2010. A procedure for granting equivalency is being added. The proposal will be in the e-room for 3 weeks if anyone has additional comments.

Access Control – Howard Hatayama

The initial phase of access control has focused on General Employee Radiation Training (GERT). There have been few issues. We are ready to move to the next phase of offering access controls linked to training requirements for specific property protection areas, such as the Advanced Light Source and the Waste Handling Facility. If hardware can be installed for all radiation labs, the GERT training requirement could be reduced for the rest of the site. There could be applications for other Divisions. For example, the Joint Genome Institute, the 88-inch Cyclotron, and the Molecular Foundry have specific training. A course is being developed for computer room access.

Committee members commented that the system should not automatically allow access to anyone who has completed the required training. Divisions should be able to review and grant access. There could be problems for Facilities personnel who need to enter restricted areas to do maintenance. Access needs are now being checked manually. Group ownership and membership changes, and the process needs to be managed.

The GERT completion restriction was successful in gaining some improvement in GERT completion. There was a problem in getting training credit for some Guests at the Potter Street facility.

There were questions about whether we need an emergency access override system, whether laser labs should have the access controls, and whether access to areas should be linked to formal work authorizations.

There was a question about whether it is a Human Resources issue to require GERT training for employees at facilities where there is no radiation work. If the employee badges also allow access to the main LBNL site, GERT is needed. The policy needs to be communicated consistently to Human Resources centers.

The meeting was adjourned at 11:40 AM

Respectfully submitted, Patricia M. Thomas, SAC Secretary